

**12<sup>th</sup> Annual Natural Gas STAR Implementation Workshop**  
**October 24-26, 2005**  
**Houston, Texas**

**WORKSHOP PROCEEDINGS**

**Table of Contents**

<b>Workshop Summary.....</b>	<b>1</b>
<b>Presentations.....</b>	<b>2</b>
<b>Awards and Acknowledgements.....</b>	<b>4</b>

## WORKSHOP SUMMARY

In October 2005, EPA and the natural gas industry convened in Houston, Texas to recognize the continued growth and success of the Natural Gas STAR Program. More than 140 participants gathered to network, share information, and celebrate the achievements of this important voluntary partnership program.

Highlights from the workshop include: presentations from partner companies on their experiences with the Natural Gas STAR Program with a focus on issues of leadership; presentations on environmental, policy and market issues; overviews of methane emissions reductions projects (e.g., using microturbines and pipeline pump down techniques); breakout sessions on both Production/Processing and Transmission/Distribution; and a Cross Fire styled discussion that focused on leadership roles and award winning strategies for cost-effectively reducing methane emissions in an effort to grow the Natural Gas STAR Program.

This year's keynote speaker was the President-Western Hemisphere of Occidental Oil and Gas Corporation, John Morgan. His presentation "Protecting the Franchise" focused on ways to build goodwill by being a good steward and tackling challenging problems with creative solutions and an eye towards detail, which for Occidental Oil and Gas Corporation includes participating in Natural Gas STAR Program.

During a special awards and recognition luncheon on Tuesday, October 25<sup>th</sup>, EPA recognized the outstanding accomplishments of a selected group of Natural Gas STAR partners and presented the 2005 Production, Processing, Transmission and Distribution Partner of the Year Awards, the Rookie of the Year Award, the Implementation Manager of the Year Award and a new award for International Partner of the Year. Furthermore, six companies were presented with Continuing Excellence Awards and six companies were presented with the 10-Year Reporting Award. Earlier in the workshop program, EPA also welcomed eight new partners to the program as well as four new program endorsers.

In addition, Natural Gas STAR Service Representatives provided partners with demonstrations of the Online Tools Suite including the Data Collection and Management Tool, the BMP/PRO Analysis Tool, and the Online Reporting System. This year's event marked the first time that exhibitors were part of the Annual Workshop, an aspect that is expected to grow in future years.

EPA extends its gratitude to the following organizations that generously co-sponsored this year's workshop:

- **The American Petroleum Institute**, for sponsorship of the Awards Luncheon.
- **BP**, for sponsorship of the Tuesday night TexMex Reception.
- **Western Gas Resources, Inc.**, for sponsorship of the Monday night Welcome Reception.
- **The American Gas Association**, for sponsorship of the Tuesday refreshment breaks.
- **ITT Industries**, for co-sponsorship of the Monday morning breakfast.
- **Solar Injection Systems**, for co-sponsorship of the Monday morning breakfast.
- **FLIR Systems**, for general support of the workshop.
- **The Houston Exploration Company**, for general support of the workshop.
- **Independent Petroleum Association of Mountain States (IPAMS)**, for general support of the workshop.
- **IPS Advantage**, for general support of the workshop.
- **Kerr-McGee Corporation**, for general support of the workshop.
- **Marathon Oil Company**, for general support of the workshop.
- **Pioneer Natural Resources**, for general support of the workshop.

## **PRESENTATIONS**

### **Welcome & Opening Remarks**

Roger Fernandez, Natural Gas STAR Program, U.S. Environmental Protection Agency

### **Plenary Session: Highlighting Natural Gas STAR Partners**

- \*Welcome New Partners and Endorsers (Roger Fernandez, US EPA)
- \*Focus on Leadership–Partner Highlights (Carey Bylin, US EPA)
- \*International Production and Processing (Krish Ravishankar, Occidental Oil and Gas Corporation)
- \*Implementation of the Natural Gas STAR Program at Kinder Morgan (Thomas Bach, Kinder Morgan)
- \*Devon Energy Partner Experience in Methane Emissions Mitigation (Ron Truelove, Devon Energy Corporation)

### **Plenary Session: Environmental, Policy & Market Issues**

*Moderated by Mitch Masterson, Apache Corporation*

- \*Building Management Support for Natural Gas STAR (Joel Howard, Marathon Oil Company)
- \*Global Gas Flaring Reduction Partnership: Challenges and Accomplishments (Bent Svensson, The World Bank Group)
- \*Capacity of New Technology to Support Better Stewardship and Waste Reduction (Don Duttlinger, Petroleum Technology Transfer Council)
- \*Gas Efficiency: A Win for Customers, Companies, and the Environment (Peter Turnbull, Pacific Gas and Electric Company)

**Keynote Speaker:** John Morgan, President– Western Hemisphere, Occidental Oil and Gas Corporation

### **Production/Processing Breakout Session:**

*Moderated by Jeff Ross, Duke Energy Field Services & Greg Southworth, Shell Exploration & Production Company*

- \*Directed Inspection and Maintenance at Selected Processing Facilities (James “Bubba” Frederick, Chevron/Unocal Corporation & Shankar Ananthakrishna, Dynegy Midstream Services)
- \*Reducing Methane Emissions with Microturbines (Stephen Frantz, BP)
- \* MMS GOADS and Offshore Methane Emissions (Mike Pontiff, Newfield Exploration Company)
- \*Cost-Effective Methane Emissions Reductions for Small and Midsize Natural Gas Producers (Don Robinson, ICF Consulting)
- \*Optimize Gas Well Unloading Time (PRO) (Reid Smith, BP)
- \*Gas STAR Online BMP Management System (Brian Boyer, COMM Engineering & Dr. Gerry Knapp, Louisiana State University)

**Transmission/Distribution Breakout Session:**

*Moderated by Ruth Jensen, Northern Plains Natural Gas Company & Steve Moore, Aquila, Inc.*

- \* Optical Imaging to Detect Gas Leaks in Gas Gathering and Transmission Pipeline (Brady Dodson, Enbridge Energy Partners, L.P.)
- \* Low Cost Solutions for Emissions Reduction in Transmission (John Cordaway, El Paso Pipeline Group)
- \* Detection and Measurement of Fugitive Emissions Using Airborne Differential Absorption Lidar (DIAL) (Dan Brake, ITT Industries, ANGEL Service)
- \* Greenhouse Gas Emissions Inventories and the Natural Gas STAR Program (Lillian Woolley, DTE Energy)
- \* Gas Savings Through Pipeline Pump Down Techniques (Tony Segura & Scott Lange, Duke Energy Gas Transmission & Keith Paul, James Meredith & Tony Thurlow, Reserve Equipment)
- \* Northern Natural Gas at the Forefront of New Technology (Rick Loveless, Northern Natural Gas)

**Cross Fire Panel Discussion:** Growing the Natural Gas STAR Program in Your Company

*Moderated by Roger Fernandez & Carey Bylin, Natural Gas STAR Program*

Panelists: Mike Pontiff, Newfield Exploration Company, Steve O'Connell, Devon Energy Corporation, Brady Dodson, Enbridge Energy Partners, L.P., Lillian Woolley, DTE Energy, and Rick Loveless, Northern Natural Gas

## AWARDS AND ACKNOWLEDGEMENTS

### Natural Gas STAR Program Awards

#### **Implementation Manager of the Year - Steven O'Connell of Devon Energy Corporation**

Devon joined the NGS program in 2003. Steve O'Connell was instrumental in getting the company up to speed quickly after they joined the Program, which helped them win Rookie of the Year in 2004 (of note were their efforts to reduce methane emissions during well completions). Steve has worked on the fall 2004 *Partner Update* and has also worked to help sponsor and take a hands on role in putting on two Technology Transfer workshops in 2005. One of our new endorsers, PAW, is in part a direct result of Steve's proactive push for Gas STAR. Steve believes in the program and never fails to answer a call for assistance in furthering the goals of the Gas STAR mission.

#### **Production Partner of the Year - Devon Energy Corporation**

Devon joined the Natural Gas STAR program in 2003 and was awarded the Rookie of the Year Award in 2004 as a result of their very active Natural Gas STAR program. This was the company's first year reporting and they submitted the second highest emissions reductions of production partners for 2004 (6.3 Bcf), including 6 PROs. They also submitted significant past reductions, with cumulative methane savings of 10.6 Bcf. In addition, Devon has given significant support to the Gas STAR program including contributions to the fall 2004 *Partner Update* and *Partner Spotlight*, and sponsoring Technology Transfer workshops in April and August of 2005. Devon has done an excellent job of building both field and management support for the Gas STAR Program, which is the prime reason for their success. They have an excellent presentation on how to replicate their success and have given it at three of the past four technical workshops and made it available to all Gas STAR participants.

#### **Processing Partner of the Year – Enbridge Energy Partners**

Enbridge Energy Partners joined the Natural Gas STAR program in December of 2003. This was the company's first year reporting and they submitted the highest emissions reductions of processing partners for 2004 (844,781 Mcf), including 5 PROs. They also contributed to the winter 2004 *Partner Update* and the *Partner Spotlight*. In 2004, Enbridge participated in the Dallas processing workshop highlighting their work with Leak Survey Inc. in the use of optical imaging.

#### **Transmission Partner of the Year – Northern Natural Gas**

Northern Natural Gas joined the Natural Gas STAR program in February of 2003. In 2004, Northern had an annual methane savings of 1.6 Bcf and their cumulative methane savings is 10.6 Bcf. Overall, Northern has excellent technical reports and has given strong support to NGS workshops, for example, by sponsoring the June 2005 Technology Transfer workshop in Midland TX. This was one of best workshops in 2005 with a half day class room session followed by a head to head field demonstration of leak detection equipment.

#### **Distribution Partner of the Year – DTE Energy - MichCon**

DTE Energy MichCon joined the NGS program in 1996. In 2004, they had the 2<sup>nd</sup> greatest emissions reduction of the distribution sector, with a methane savings of 0.4 Bcf. DTE's cumulative methane savings total 1.3 Bcf.

#### **International Partner of the Year – Occidental Oil and Gas Corporation**

Occidental Oil and Gas Corporation joined the NGS program in 2004. Oxy has concentrated its efforts in Gas STAR by assisting in taking Gas STAR international. Oxy was the first company to sponsor an international Gas STAR workshop under the Methane to Markets Program.

#### **Rookie of the Year – Newfield Exploration Company**

Newfield Exploration Company joined the NGS program in 2004. Since joining, the company had submitted two annual reports. The implementation manager, Mike Pontiff, has been very active, making presentations at two Gas STAR workshops, and contributing to the SPE Paper program sponsored study and report on Process Optimization Review and presenting those results at several Gas STAR Workshops.

<b>Natural Gas STAR Continuing Excellence Awards</b>
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**Kerr-McGee Oil & Gas Corporation**

Kerr-McGee continues to be a leader in the production sector. In 2004, their annual methane savings was 3.0 Bcf and their cumulative methane savings have been 9.7 Bcf since 1992. The company was also recognized for its accomplishments in 2000, 2001, and 2003. In addition, Kerr-McGee consistently implements a wide variety of PROs every year.

**Western Gas Resources**

Western Gas Resources submitted its first annual report under the NGS program in early 2003 and their Gas STAR Program continues to grow under the guidance of Don Anderson and other dedicated staff. In 2004, Western Gas Resources' annual methane savings was 0.5 Bcf and their cumulative methane savings have been 3.0 Bcf.

**Columbia Gas & Columbia Gulf Transmission**

These companies continue to be top reporters in the transmission sector and were awarded the NGS Continuing Excellence Award in both 2001 and 2002. In 2004, Columbia Gas' annual methane savings was 4.3 Bcf and Columbia Gulf's was 1.0 Bcf. Cumulative methane savings has been 27.5 Bcf for Columbia Gas and 7.3 for Columbia Gulf.

**Duke Energy Gas Transmission**

Duke Energy Gas Transmission joined the NGS program in 2000, and in 2002 the company was awarded the Transmission Partner of the Year Award. In 2004, their annual methane savings were 1.6 Bcf and cumulative methane savings have been 7.7 Bcf. Duke Energy has also provided support to the Gas STAR program through the sponsorship of a technology transfer workshop.

**Southwest Gas Corporation**

In 2004, Southwest Gas Corporation's annual methane savings were 0.3 Bcf and their cumulative methane savings have been 2.7 Bcf.

**El Paso Pipeline Group**

El Paso Pipeline Group joined the NGS program in 1993. In 2004, the company's annual methane savings were 1.8 Bcf and their cumulative methane savings have been 6.7 Bcf. The company's Gas STAR Implementation Manager, John Cordaway, has been very active in the Gas STAR Program by providing substantial insight to various technical issues, contributing to Gas STAR technical support documents, and presenting at several workshops. El Paso also identified Leak Lock as a best practice.

<b>Natural Gas STAR 10-Year Reporting Partners</b>
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EPA recognizes the following partners for their consistent methane emissions reductions reporting during the last ten years and continuing participation in the Natural Gas STAR Program.

**BP** (joined the Gas STAR program in 1995)

**Great Lakes Gas Transmission Company** (joined the Gas STAR program in 1995)

**Consolidated Edison Company of New York** (joined the Gas STAR program in 1993)

**PSNC Energy** (joined the Gas STAR program in 2004)

**Central Hudson Gas & Electric Corporation** (joined the Gas STAR program in 1995)

**Orange and Rockland Utilities, Inc.** (joined the Gas STAR program 1994)

<b>New Natural Gas STAR Partners</b>
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EPA would like to recognize those partners that joined the Program in the last year.

- EnCana Oil and Gas (USA) Inc.
- Alliance Pipeline
- Northern Plains Natural Gas
- Noble Energy
- PNM
- Venoco
- Southwestern Energy Company
- Enterprise Products Operating, L.P.

<b>New Natural Gas STAR Endorses</b>
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EPA would like to recognize four new Natural Gas STAR Program endorsers.

- Petroleum Association of Wyoming (PAW)
- Interstate Oil and Gas Compact Commission (IOGCC)
- AIChE Institute for Sustainability
- Colorado Oil and Gas Association (COGA)